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IMPACT OF CONSTRUCTION WASTE MANAGEMENT TOWARDS ENVIRONMENTAL HEALTH

Final Project submitted in partial fulfilment
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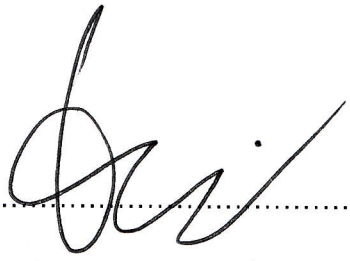
DECLARATION

"I declare that this Final Project / dissertation is the result of my own research and that all sources are acknowledged in the references"

Student's signature : 

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ABSTRACT

In a typical construction project, there is always a wastage arise on the site. Construction waste consists of unwanted material produced directly or incidentally by the construction industry. Majority building waste is made up of materials such as brick, cement and sand and wood damaged or unused for various reason during construction. This includes building materials such as piling, nails, insulation, electrical wiring, roofing tiles, concrete, reinforcement, formworks and other waste originating from site clearance such as tree stump, hedges, rubble and tree stumps. In addition, construction waste also may contain lead, asbestos or other hazardous substances. Observational research has revealed that this can be as high as 10 to 15 percent (%) of the materials that go into a building, a much higher percentage than the 2.5-5 percent (%) usually assumed by quantity surveyors and the construction industry. Since considerable unpredictability exists between construction sites, there is much opportunity for reducing this waste. Hazardous waste is a by-product of many large and small industries such as from factory, farming and even in construction industry. From the public's perspective, it is most often associated with medium- to large-scale manufacturers, but many small, non-manufacturing industries produce hazardous waste. Construction waste is a worldwide problem and it is becoming a serious environmental problem in many large cities. Malaysia is facing a slight increase in the generation of waste and of accompanying problems with the disposal of this waste. The construction industry has a substantial impact on the environment, and its environmental effects are in direct relation to the quality and quantity of the waste it generates. The aim of this research is mainly focus on the identification of the hazardous substances associated in the waste management, the impact towards the environmental health and to study the advantage and the disadvantage of the method of waste management. This research will involve in setting and distributing a set of questionnaires to contractor G7 to get the response and to analyses the impact of construction waste management on environmental health.

Keywords: Waste Management; Construction; Hazardous Material; Environmental

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CHAPTER 1: INTRODUCTION

1.1 TITLE OF RESEARCH

Impact of Construction Waste Management Towards Environmental Health.

1.2 OVERVIEW OF THE TITLE

The construction industry in Malaysia is currently growing as it supports the economy of the country and provides infrastructure (Papargyropoulou, 2011). However, this thriving industry is responsible for one of the single largest waste streams in the country. This study focuses on impact of construction waste management on environmental health. Waste may be labeled as hazardous substances if it shows one or more radioactive or hazardous products like oxidizing, flammable, annoying, dangerous, destructive, poisonous, carcinogenic or substances that may cause harm to human health and the environment (Mmereki, et al., 2016). Additionally, reported by Of and Waste, (2017) also mentioning that hazardous waste is a substance that presents harmful effects to the environment such as poisonous/infectious, corrosive and as stated earlier. In this context, there is a need to tackle hazardous waste issues such as conservation, nutrition, security, protection of the environment and cleaner production. It is reported that in India has witnessed a fivefold rise of industrial production in the last 3 decades (Of and Waste, 2017). Approximately, it is nearly four thousand medium and large chemical and related industries are currently in operation in India. The alkali industry alone has full-grown tenfold since 1947, while dyestuff production has risen up to up to as much as 4.5 times. This is a shocking news where the industry involves in the use of as many as 139 organic chemicals and heavy metals such as zinc, lead, chromium, copper, mercury, molybdenum, and their compounds and also various acids and alkalis (Of and Waste, 2017). Furthermost of the hazardous wastes produced are likely in waste dumpsites. As these waste constituents are intermittent and move through the soil, which can contaminate the soil and groundwater. The broadly use of toxic organic chemicals such as pesticides, aromatic hydrocarbons, bulk products and colors has contributed to their forced incorporation into various parts of the world, leading to environmental degradation. Meanwhile, Mmereki et al., (2016) has argue that such